Dolphin
charger

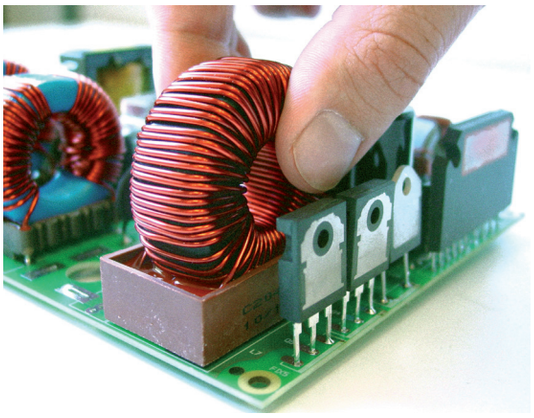
BATTERY CHARGERS AND ACCESSORIES

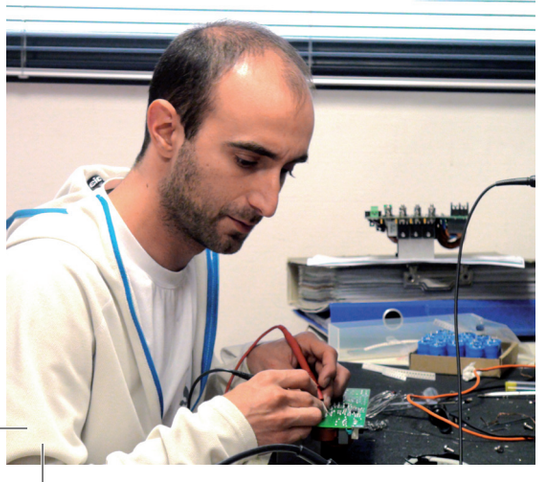
www.dolphin-charger.com

WHY CHOOSE A DOLPHIN CHARGER ?

Since their launch in 1995, Dolphin Battery Chargers have consistently proven themselves market leaders. Dolphin 1 - 1995 to 2001 - was technologically advanced for its time. When Dolphin 2 was launched in 2001, an emphasis was placed on the design of the product. Dolphin Premium since 2011 and Dolphin Pro since 2012, are products without compromise.

Together with Reya, Dolphin Battery chargers are developed and manufactured by MDP Electronic, a French leader in power electronic. Part of the production process is subcontracted to cost efficient countries thus ensuring that Dolphin Battery Chargers will remain price competitive as well as technologically advanced in the years to come.





An ISO 9001 certified Research & Development facility in France with a specialized team of electronics engineers

A rigorous quality control department, testing every product before it leaves the factory.

Up to date technology

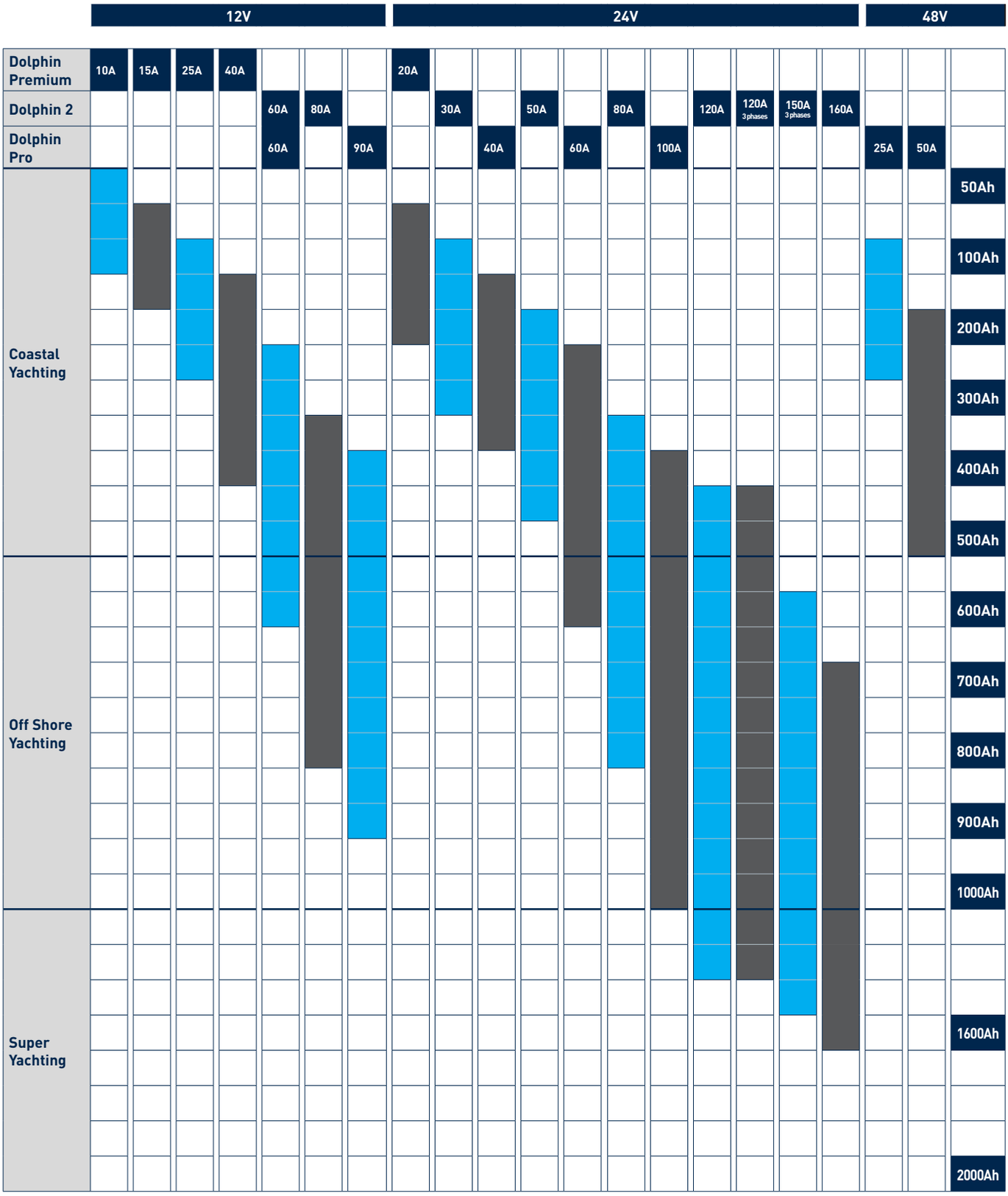
A dedicated after sales service

Sales to date of over 100,000 units, on every continent

An international network of distributors and service points

2 years warranty

HOW TO CHOOSE THE RIGHT DOLPHIN CHARGER FOR YOUR BOAT ?



We recommend a charging rate to a maximum of 20% of the amp hour capacity of the battery.
Example : the charger or a 300Ah battery is maximum 60 amps.

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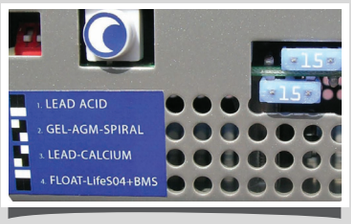
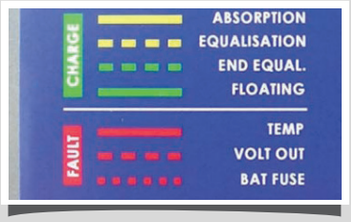
PLUG AND PLAY BATTERY CHARGER

Dolphin premium

- New robust and compact casing
- 3 completely isolated battery outputs
- User friendly, thanks to the Winsta (Wago) and Phoenix contact connectors wiring & connection is easy
- Digital management with up to date RISC microcontroller
- 4 charging programs including one for Lithium-Ion-Iron-Phosphate with integrated BMS
- Charging program selection by internal dip switch
- Automatic weekly equalization for all charging programs
- Automatic 115/230V switchover (12V25A, 12V40A & 24V20A only)
- Night mode : silent, without fan (12V25A, 12V40A & 24V20A only)





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	12V				24V
	10A	15A	25A	40A	20A
Input					
Input Voltage	230V (+/-15%) 115V available on request		115V/ 230V (+/-15%) Automatic Switchover		
Frequency	50Hz/60Hz (+/-10%)				
Cos	0,6 typ		0,9 typ		
Efficiency	80% typ				
Max. Current 115V/230V	NA/1,3A	NA/1,9A	4A/2A	7A/3,5A	7A/3,5A
Fuse (5x20mm)	T2A 250V	T3,15A 250V	T6A 250V	T10A 250V	T10A 250V
Output					
Number of outputs	3 isolated outputs				
Number of charging curves	"4 programs, position selected by dip switch NEW - one of which is LiFeSO4 with integrated BMS"				
Charging curve	IUUo + weekly automatic equalisation				
Weekly equalisation	Automatic				
Voltage share	+/-2%				
Ripple	< 1% pp (BW < 20MHz)				
Fuse (automotive mini)	F15A 32V	F20A 32V	2 x F15A 32V	2 x F25A 32V	2 x F15A 32V
Protection					
	"In case of output overload, Excessive internal temperature Charging voltage too high, Reverse battery polarity (fuse)"				
General					
Display	Tricolour LED				
Night/Silent mode	By button				
Operating temperature	-10°C to +50°C				
Storage temperature	-20°C to +70°C				
Humidity	10% to 90% (without condensation)				
Ventilation	Natural		Forced fan cooling		
Security	EN60335-2-29 (2002)				
Housing	Powder coating aluminium				
Mouting	2 screws 4mm				
Dimensions	96 x 120 x 238 mm		96 x 120 x 354 mm		
Weight	1,30 Kg		1,90 Kg		
Input terminals	"20A 230V, 4mm² max Ref : 770.813/G11-000 (WINSTA - WAGO)"				
Battery terminal	"40A 630V, 10mm² max Ref : PC6-16/4-G1F,16 (PHOENIX CONTACT)"				
Code	399000	399010	399020	399030	399040

ROBUST AND POWERFUL MARINE BATTERY CHARGER

Dolphin pro

NEW

Can operate up to 65°C without D rating

Evolution of the Dolphin 2 range : the Dolphin Pro has an internal low voltage drop isolator

User friendly design: a solid and compact casing in aluminium, mounting by 4 easily accessible screws, a front cover allowing easy access to the charge selector and the wiring connections (4 solid M8 terminals for the battery outputs), a cable gland for the input cable and a cable grommet with a waterproof seal

Integrated Control Panel : LED display indicating the charging curve; boost, absorbsion, floating as well as anomolies and faults : temperature, voltage, fuses...

Automatic switchover: equiped with 3 isolated outputs, automatic switchover 115V / 230V, 50Hz / 60Hz, 9 charging programmes (including 1 winterizing and 1 power supply) depending on battery type, makes this charger suitable for all charging needs

Optional extras : External touch screen control panel Touchview and a battery temperature sensor allowing a charging level adjustment

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	12V		24V			48V	
	60A	90A	40A	60A	100A	25A	50A
Input							
Input Voltage	"115V/ 230V (+/-15%) Automatic Switchover"				230V	"115V/ 230V (+/-15%) Automatic Switchover"	230V
Frequency	50Hz/60Hz (+/-10%)						
Cos	0,9 typ						
Efficiency	82%	82%	85%	85%	88%	85%	85%
Max. Current 115V/230V	12A/6A	14A/7A	12A/6A	12A/9A	15A	12A/9A	15A
Fuse (5x20mm)	T16A		T20A		2xT20A	T20A	2xT20A
Output							
Number of outputs	3 isolated outputs						1 output
Number of charging curves	"9 programs, position selected by dip switch 00-Liquid Lead Acid batteries (open) 01-Sealed Lead batteries 02-Lead Calcium batteries 03-""Delphi"" batteries 04-""Optima/Maxima"" batteries 05-Winterizing 06-Batteries Gel&AGM 07-Power supply 08-LiFeSo4 batteries"						
Charging curve	IUUo 3 modes						
Voltage share	+/-2%						
Ripple	< 1%						
Fuse (automotive mini)	3F25A	4F30A	3F30A	3F30A	5F30	2F20	4F20
Protection							
	"In case of output overload, Excessive internal temperature, Charging voltage too high Reverse battery polarity (fuse), Excessive battery temperature, Temperature sensor default, AC over and under voltage"						
General							
Display	LED display or optional tactil display Touchview						
Operating temperature	-10°C to +65°C						
Storage temperature	-20°C to +85°C						
Humidity	10% to 95% (without condensation)						
Ventilation	Forced fan adjustable speed cooling						
Security	EN60335-29-2						
EMC	Emission EN55014-1						
Housing	Powder coating aluminium and composites materials (LED display)						
Mouting	wall mounted 4 x M4 screws						
Dimensions	340x360x125 mm				340x360x190 mm	340x360x125 mm	340x360x190 mm
Weight	6 Kg				12 Kg	6 Kg	12 Kg
DC connection	4 M8 terminals						
Battery terminal	2 pins max 10mm² terminal, M6 bolt for groung						
Output alarm contact	1A 30V NO						
Optional connections							
Battery temperature sensor	2 pins terminal 1,5 mm² max						
External touch screen control panel (touchview)	RJ45						
CAN bus connection	RJ11						
Code	399140	399150	399160	399170	399180	399190	399200

LIGHTWEIGHT AND COMPACT BATTERY CHARGER

Dolphin charger

- Latest SMD electronic construction technology
- Switch mode technology and three stage charging design with power supply
- Program selector switch including winterizing and 6 battery types
- LED display for programming and monitoring functions
- Lightweight white aluminium powder coated casing
- 4 screw simple install with easy access removable panel
- Temperature sensor for battery compensation

	Display unit
Description	"Remote control panel for Dolphin battery chargers 5m cable as standard"
Code	299037

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	12V	
	60A	80A
Input		
Input Voltage	115V/230V ± 15%	
Changeover 115V-230V	Automatic	
Frequency	50/60 Hz ± 10%	
Harmonics	According to IEC 1000-3-2 or EN 61000-3-2	
Max. Current 115V/230V	10A / 5A	14A / 7A
Power factor	> 0.90	
Efficiency	80% typ.	
Power rating	980W	1300W
Active Power	1100 VA	1450 VA
Fuse	T15A 6.3x32	
Output		
Number of outputs	3 isolated	
Charging characteristic	10 charging programs	
Temp. Compensation	± 15mV / °C optional external sensor	
Voltage share	± 2%	
Ripple	< 1%	
Maximum current	60A ± 10%	80A ± 10%
Fuses	3 x F30A	4 x F30A
Protection		
Output circuit	Overload, Short-circuit, reversed polarity, over voltage	
Over temperature	Built in sensor, battery sensor	
General failure	Fuse	
Display		
LED Display	5 LEDs	
Remote control panel	Optional	
Push button	Absorption	
General		
Control	Microprocessor based RISC technology	
Topology	Forward 50 KHz + built-in PFC	
EMC	Emission : EN 50081-1, immunity : EN 50082-1	
Safety	EN 60335-1	
Operating temperature	0°C to + 50°C / 32°F to 122°F	
Storage temperature	-20°C to +70°C / -4°F to 158°F	
Enclosure	IP22	
Ventilation	Forced fan cooling	
Fan speed	50% to 100% depending on internal temperature	
Monting	Wall mounting - 4 screws M4	
Humidity	10% to 90% RH non-condensing	
Dimensions	330x350x120mm	330x350x120mm
Weights	5 Kg	5 Kg
Connections		
AC connections	2 x 4mm² terminal blocks	
DC connections	M8 bolts	
Temperature sensor connection	2 x 10mm²	
Code	299711	299708

	24V					24V triphasé	
	30A	50A	80A	120A	160A	120A	150A
Input							
Input Voltage	115V/230V ± 15%					400V ± 15% (3 ph + N)	
Frequency	50/60 Hz ± 10%						
Changeover 115V-230V	Automatique						
Cos phi	0.90 typ.						
Efficiency	> 80%						
Max. Current 115V/230V	10A / 5A	16A / 8A	26A / 13A	20A	27A	7A / phase	9A / phase
Max. Power rating	980W	1630W	2700W	4050 W	5400 W	4050 W	5400 W
Active Power	1100 VA	1850 VA	3000 VA	4500 VA	6000 VA	4500 VA	6000 VA
Fuse	T15A 6.3x32	T20A 6.3x32	2 x 20A	3 x T20A	4 x T20A	3 x T20A	4 x T20A
Output							
Number of outputs	3 isolated						
Charging current	30A ± 10%	50A ± 10%	80A ± 10%	120A ± 10%	160A ± 10%	120A ± 10%	150A ± 10%
Charging characteristic	10 charging programs						
Voltage share	± 2%						
Ripple	< 1%						
Fuses	2 x F25A	3 x F25A	4 x F30A		8 x F30A		
Protection							
Short circuit fault	In case of output overload - Output short-circuit						
Temperature fault	Excessive internal or battery temperature (optional)						
Reverse polarity	Faulty external temperature (optional)						
General failure	Output over voltage - General fault						
Display							
LED Display	6 LEDs						
Remote control panel	Optional						
Push button	Absorption						
General							
Control	Microprocessor based RISC technology						
Operating temperature	0°C to + 50°C / 32°F to 122°F						
Storage temperature	-20°C to +70°C / -4°F to 158°F						
Humidity	10% to 90% without condensation						
Enclosure	IP22						
Ventilation	Forced fan cooling						
EMC	EN 50081-1, EN 50082-1, EN61000-3-2						
Safety	EN 60335-1						
Fan speed	50% to 100% depending on internal temperature						
Monting	Wall mounting - 4 screws M4						
Dimensions	330x350x120mm		330x360x170mm		710x340x170mm		
Weights	5 Kg		8 Kg		14 Kg		
Additionnal functions							
1/2 charge	By switch on front of the charger						
Paralleling	Yes						
Connections							
AC connections	2 x 4mm² terminal blocks						
DC connections	M8 bolts						
Temperature sensor connection	2 x 10mm²						
Code							
Standard	299712	299714	299716	299718	299719	299728	299730

DOLPHIN INVERTER
SINE WAVE 24 V 3000 W

Pure Sine Wave
This pure sine wave inverter guarantees a safe, pure and stable power supply that will not damage AC appliances.

Parallel up to 24V 9000VA
Up to three Dolphin Inverters can be used in parallel to provide a powerful onboard appliance and connected by means of a SubD cable. One of the inverters will act as the master and the other charger(s) as slave(s) giving upto 24v 9000VA.

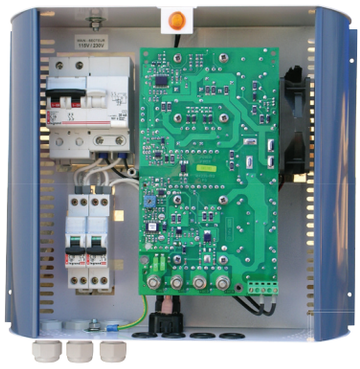
Battery safety
The Dolphin Inverter is designed to operate with battery voltage between 19V and 33 V, meaning that it will cut off once the battery levels reach 19V and thus not discharge the batteries. Similarily, battery levels reach 33V, the inverter will sence it and cut off. Optimal start up voltage is 22.

A wide range of domestic appliances can be used on board thanks to the Dolphin Inverter :

	24V
	3000 VA
Input / Battery	
Batteyr capacity (min)	200 Ah
Battery voltage	21 Vdc - 32 Vdc
Efficiency	80%
Low voltage cut off	19V
Hogh voltage cut off	33V
Start up voltage	22V
Nominal consumption	120A
Standby consumption	200mA
Fuse	6 x 30A fast
Output	
AC output	1 isolated
Max.current	230Vca ± 5%
Frequency	50Hz ± 1%
Nominal output	3000 VA (cos 0.7)
Max. output	4500 VA
Fuse	15A (temporised)
Wave form THD	<3%
Protection	
Output circuit	"Battery over or under voltage Output overload - output short circuit Excessive internal temperature Faulty external temperature Over voltage - General fuse fault"
Visual Alarms	"Internal inverter fault, Over current Battery voltage fault, Temperature"
Display	
LED display	6 LEDs
Remote control panel	Optional
General	
Control	Microprocessor based RISC technology
Operating temperature	0°C to + 50°C / 32°F to 122°F
Storage temperature	-20°C to +70°C / -4°F to 158°F
Humidity	10% to 90% without condensation
Enclosure	IP22
Ventilation	Forced fan cooling
EMC	EN 50081-1, EN 50082-1
Safety	EN 60335-1
Monting	Wall mounting - 4 screws M4
Dimensions	440x390x190mm
Weights	10 Kg
Additionnal functions	
Parallelling	Up to 3 inverters
Connection	"SubD9 cable & output cables in parallel Connection between inverters by SubD cables Master / slave parameters"
Code	299324

DOLPHIN ALL IN ONE
BATTERY CHARGER AND ELECTRICAL CABINET

The All in One unit combines an AC distribution system with a 12V switch mode battery charger, all in the same compact box.

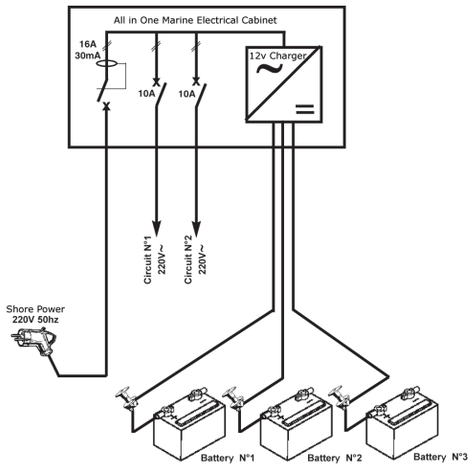


AC circuit protection is by means of a 30 mA, 16 amp R.C.C.B. unit. Two AC loads can be connected, each with its own 10 amp double pole circuit breaker.

The battery charging function is identical to that of the standard Dolphin Battery Charger.

The "All-in-One" units are available in 2 different models,15amp or 20amp. Both have 3 outlets to provide charging for 3 separate banks if required.

ISO 13297 electrical systems alternating current installations.



	12V	
	15A	20A
Output		
Number of outputs	3	
Charging curve	IUoU	
Housing		
Dimensions	265 x 280 x 110 mm	
Weight	2.1 Kg	
Code	299815	299820

www.dolphin-charger.com

WATERPROOF BATTERY CHARGER

AUTOMATIC BATTERY CHARGER WATERPROOF AND SHOCK RESISTANT

Nothing can damage this charger, not water, hydrocarbons or impurities. The housing is aluminium and the electronics are coated in resin.

Thermal protection

This battery charger can even be used in warmer areas of the boat like the machine room.

Automatic charger with 3 charging curves

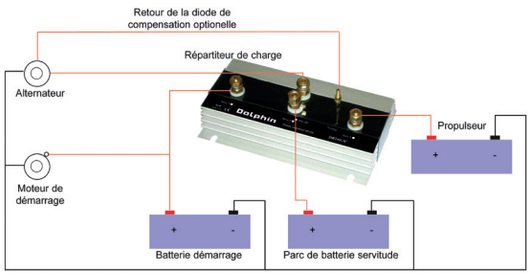
The battery is protected against all overloads and can remain permanently connected (operating in floating).

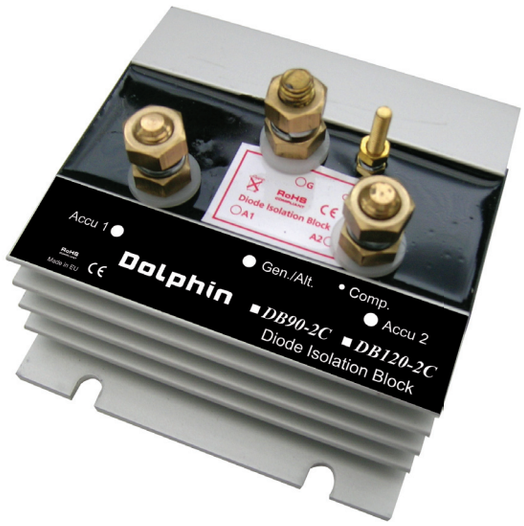
	12V	
	7A	17A
Battery capacity	18 - 80 Ah	20 - 180 Ah
Input		
Input voltage	170 - 270 VAC	
Input frequency	40 - 60 Hz	
Output		
Number of outputs	1	
Output voltage	14.4 / 13.8 VDC	
Charging curve	IUoU	
Fuse (supplied)	6.3 / 10 Amps	6.3 / 20 Amps
Protection		
Short circuit	Yes	
Reverse polarity	Yes (fuse)	
Temperature fault	Signalled by flashing LED	
General		
Operating temperature	-30 à +55°C	
Ventilation	Natural	
Humidity	Up to 100%	
Housing		
Protection level	IP65 (Electronics immersed in resin)	
Material	Aluminium casing	
Dimensions	155 x 80 x 43 mm	192 x 98 x 47 mm
Weight	1.1 Kg	1.4 Kg
Wiring		
Gauge	3 x 0.75 mm² x 1,5m long with EU rated plugs 2P+T	
Battery cable	1 x 1.5 mm² x 1,5m long	
EMC		
	"EN 60335-1 / EN 60335-2-29 / EN 55014 / EN 60555-2 / EN 60555-3 EN 55022 Cl.B / EN 61000-3-2 / EN 61000-3-3 / EN 61000-4-2 EN 61000-4-11 / e-marking 95-54-EG"	
Code	498000	498100

DOLPHIN DIODE
BATTERY ISOLATOR

Schottky diodes

The Dolphin battery isolators feature a low voltage drop thanks to the use of Schottky diodes: at low current the voltage drop is approximately 0,3 V and at the rated output approximately 0,45



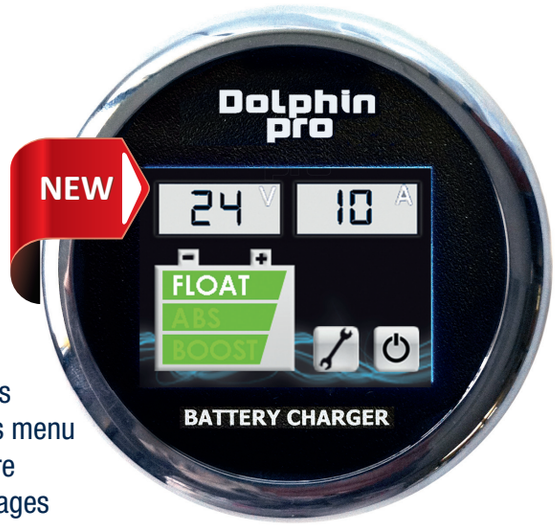


	DB70-2C	DB90-3C	DB120-2C	DB120-3C	DB160-2C	DB160-3C
General						
Max. Charge Current	50 A	70 A	100 A	100 A	130 A	130 A
Max. Alternator Current	70 A	90 A	120 A	120 A	160 A	160 A
Input	1	1	1	1	1	1
Outputs	2	3	2	3	2	3
Connection	M6	M8	M8	M8	M8	M8
Diode connection	M4	M4	M4	M4	M4	M4
Weight	0,6 Kg	1,2 Kg	0,8 Kg	1,2 Kg	1,2 Kg	1,5 Kg
Dimensions HxWxL	60 x 120 x 80mm	60 x 120 x 150mm	60 x 120 x 100mm	60 x 120 x 150mm	60 x 120 x 150mm	60 x 120 x 200mm
Code	512000	512001	512002	512003	512004	512005

TOUCH VIEW
CONTROL PANEL

External touch screen control panel for Dolphin Pro range

Tactile, with Can Bus connection
You can supervise your charger and your battery bank



	12/24V
General information	
Screen size	round diameter 2,4" - 6,1 cm
LCD Type	a-Si TFT
Color configuration	RGB vertical stripe
Backlight	White LED
Interface	16-bit interface for i80system
Conformity	ROHS
Code	399033

5 languages
Instructions menu
Temperature
Error messages
Charging current
Charging curve selected
Charging phase (boost, abs, float)
Power max delivered (30, 50, 70, 100%)

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BAT VIEW 2.0
BATTERY MONITOR

At the touch of a button you will be able to monitor a host of important information.

- Simple to connect
- Automatically detects the input voltage (12 VDC or 24 VDC)
- CanBus SAE J1939 interface
- Flush fitted, diameter Ø 52 mm

The Bat View 2.0 battery monitor analyses battery voltage, battery efficiency, temperature and capacity on 2 battery banks (by means of an optional second shunt) also the voltage on 2 additional banks.

- Includes a digital filter which allows it to avoid problems arising from motor start up, fuse faults, unballasting, etc...
- Non volatile memory which allows it to retain configuration parameters even if there is no power source.
- Powerful calculating algorithms which take count of the currant draw, the charge status and the type of battery, so it can supply precise indication of the remaining charge.

This means that the Bat View 2.0 is more than just a simple Ah counter. In fact, its energy counter takes into consideration :

- during the charge, output that diminishes according to the battery's charge,
- during the discharge, restored capacity which diminishes according to the draw.

Armed with accurate battery information you can make informed decisions about when to stop or start charging - no longer will you be subject to unexpected flat batteries!

	12/24V
	10 - 5000 Ah
Power supply	
Voltage	10-30 VDC
Consumption	10mA approx. (normal mode) 30mA approx. (alarm mode)
Display funtions	
Display type	"Graphic OLED display 4 lines"
Parameter selection	5 way navigation keypad
Parameters displayed	
Batteries 1 & 2	Voltage, Current, Temperautre & Capacity
Batteries 3 & 4	Voltage
Alarm functions	
Batteries 1 & 2	"Battery undervoltage (adjustable) Battery overvoltage Excessive temperature Low capacity"
Batteries 3 & 4	"Battery undervoltage (adjustable) Battery overvoltage"
Alarm output	Dry loop, 1 inv - 1 Amp max.
Supplied with	
Temperature sensor	1 electric sensor
Shunt	1 shunt 300 Amps/100mV
General information	
Security	Delayed fuse 100 mA on +
Operating temperature	- 10°C to + 50°C
Storage temperature	- 20°C to + 70°C
Convection	Natural
Presentation	Flush mounted Ø 52 mm
Dimensions	70x70x32mm
Weight	< 500g
Connection	2 screw terminals
Code	399 032

2599 Route de la Fenerie - 06580 Pégomas, France / Tél : +33 4 93 90 47 08 - Fax : +33 4 93 90 24 40 / export@reya.com / www.reya.com